



US 20180226860A1

(19) **United States**

(12) **Patent Application Publication**
Glatfelter et al.

(10) **Pub. No.: US 2018/0226860 A1**

(43) **Pub. Date: Aug. 9, 2018**

(54) **ENERGY HARVESTING AIRPORT**

H02N 2/18 (2006.01)

H02K 35/06 (2006.01)

(71) Applicant: **The Boeing Company**, Chicago, IL
(US)

(52) **U.S. Cl.**

CPC **H02K 7/1823** (2013.01); **F03D 3/002**
(2013.01); **F03D 3/02** (2013.01); **F03D 3/061**
(2013.01); **F03D 9/255** (2017.02); **F05B**
2220/706 (2013.01); **E01C 11/00** (2013.01);
E01C 15/00 (2013.01); **H02N 2/186**
(2013.01); **H02K 35/06** (2013.01); **F05B**
2240/221 (2013.01); **E01C 9/00** (2013.01)

(72) Inventors: **John W. Glatfelter**, Kennett Square,
PA (US); **Stuart A. Galt**, Maple Valley,
WA (US)

(21) Appl. No.: **15/425,542**

(22) Filed: **Feb. 6, 2017**

(57)

ABSTRACT

An example system for harvesting energy from air vehicle thrust operations includes a runway surface for air vehicle takeoff and landing, where the runway surface comprises a door, and where the door is openable to a cavity positioned below the runway surface. A plurality of wind turbine blades is positioned within the cavity, and the plurality of wind turbine blades are rotatable by air flowing into the cavity. The system also includes a generator coupled to the plurality of wind turbine blades such that the generator produces electricity in response to the rotation of the plurality of wind turbine blades.

Publication Classification

(51) **Int. Cl.**

H02K 7/18 (2006.01)

F03D 3/00 (2006.01)

F03D 3/02 (2006.01)

F03D 3/06 (2006.01)

F03D 9/25 (2006.01)

E01C 9/00 (2006.01)

E01C 11/00 (2006.01)

E01C 15/00 (2006.01)

